



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,830	11/24/2003	Roger W. Hewett	9858-000149/COI	3958
28997	7590	12/16/2004	EXAMINER	
HARNESS, DICKEY, & PIERCE, P.L.C. 7700 BONHOMME, STE 400 ST. LOUIS, MO 63105			PASCHALL, MARK H	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/720,830	Applicant(s) HEWETT ET AL. <i>OH</i>	
	Examiner Mark H Paschall	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9 and 11-17 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11-24-03</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 8,9,11-14,17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 mentions that a set of consumables comprises, " a dielectric standoff sized...". It is not clear how a single element can comprise a plurality of consumables. Also one of ordinary skill in the art would not know how to assemble and use the same from the present description. For instance, what does the standoff insulate and how is it oriented? Correction is required. Likewise claim 11 merely claims a standoff and it is not known how this element can be positioned in a torch, or where it is positioned. Claim 17 states, "installing consumable components to provide sufficient dielectric. It is not clear just what the dielectric is between or what it does. Correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3742

Claims 11,-17, insofar as understood are rejected under 35 U.S.C. 102(b) as being anticipated by Lu '663. Note swirl ring 62-64 which spaces tip 518 from electrode 412 in a hf torch, as claimed. Note that these claims , claim only a standoff element and the consumables in Lu are capable of operating , dependent on the hf voltage level applied. The claims are silent as to the voltage or element orientation. As per claim 12 the element could be disposed between the torch handle and head, which effectively limits the disposition to the entire torch. Claim 13 is identical to claim 12 and should be canceled. AS per claim 15 arcing would not occur in a functioning torch if sufficient dielectric insulation is present, and Lu does set forth a functioning torch.

Claims 1-3,5-7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Couch, Jr. et al '033'. Note that a hf torch is taught and swirl ring (start cartridge 90) is taught and include vent holes and gas passages as per claim 3. As per claim 6 not three sets of vent and gas passages. Note collar 90b as per claim 7. (see figure 6).

Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Sanders et al '512.

Note that if the set of consumable comprised a shield cup and a tip, these elements could be used in a hf torch or a contact start torch (with translatable electrode and a non-translatable tip, as claimed.

***Allowable Subject Matter***

Claim 10 is allowed.

Art Unit: 3742

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 4 defines multiple; sized vent holes for varying gas velocity, not taught in the prior art of record. Claim 10 sets forth all of the consumables needed for both hf and contact start, in a working manner. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark H Paschall whose telephone number is 703 308-1642. The examiner can normally be reached on 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (703) 305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark H Paschall

Application/Control Number: 10/720,830

Page 5

Art Unit: 3742

Primary Examiner  
Art Unit 3742

mp

*mpali*